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ABSTRACT

An overview is given of the state of teaching materials and aids used in schools in Japan. In section I, an outline is presented of the Japanese system of providing teaching materials. Several laws and regulations regarding the provision and use of textbooks are described, including: (1) school education law; (2) law concerning the organization and functions of local education administration; (3) school management regulation; (4) courses of study; (5) industrial education promotion law; (6) law for the promotion of science education; and (7) law concerning the National Treasury's share of compulsory education expenses. Attention is given to: the role of the Ministry of Education, Science and Culture; boards of education; and schools in respect to the promotion and use of teaching materials. The different types of teaching materials typically used in Japan are detailed in section II: books and other printed materials; maps and wall charts; and audiovisual aids. Section III discusses expenditures for teaching materials, including those covered by the government and those covered by parents and students. Section IV discusses the situation and effectiveness of the utilization of teaching materials, including books and other printed materials, maps and wall charts, and audiovisual aids. A list is presented of the dissemination rate of audiovisual equipment in the public schools. (JD)

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THE TEACHING MATERIALS SYSTEM IN JAPAN

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INTRODUCTION

Teaching materials and teaching aids constitute the media which learners use for their studies. In this paper, for reasons of convenience, the term "teaching materials" will be used to refer to concrete objects embodying the substance of education (textbooks, movies, slides, video tapes, etc.) while those objects serving more as instruments (projectors, video tape recorders, etc.) will be called "teaching aids." In the following, emphasis will be placed on teaching materials, although reference will also be made in part to the utilization of the various teaching aids available.

I. OUTLINE OF THE JAPANESE SYSTEM OF TEACHING MATERIALS

In Japan, there are two types of systems forming a framework for the provision of teaching materials used in elementary, lower secondary and upper secondary schools; one of these systems is based on the two laws, the "School Education Law" and the "Law concerning Organization and Functions of Local Educational Administration", and the other is based either on the "Law for Promotion of Science Education" or on the "Industrial Education Promotion Law." Under the former system, the teaching materials are mainly purchased by the parents of the pupils and students, while under the latter system the expenses for the teaching materials are covered by the State and municipality budgets.

With regard to textbooks, the entire cost is met by the State and textbooks are distributed free of charge to the pupils and students of elementary and lower secondary schools in accordance with the "Law concerning Free Textbooks in Compulsory Education Schools."

1. Educational Laws and Regulations (including the Courses of Study for Elementary, Lower Secondary and Upper Secondary Schools)

(1) School Education Law

The utilization of textbooks is compulsory as provided in Paragraph 1, Article 21 of the School Education Law: "At elementary school, the textbooks to be used shall be those that have been authorized by the Minister of Education, Science and Culture or textbooks, the copyright of which is held by the said Ministry."

With regard to teaching materials, it is stipulated in Paragraph 2 of the same Article that "In addition to the textbooks mentioned in the preceding paragraph, such books and other teaching materials as are useful and appropriate may be used."; in this way authorization is provided for the use of additional teaching materials that are deemed to be "useful and appropriate" in quality.

Furthermore, regarding the use of teaching materials at lower secondary and upper secondary schools, it is provided in Articles 40 and 51 of the same Law that the regulations as laid down in Article 21 of the said Law shall be applied *mutatis mutandis*.

(2) Law concerning the Organization and Functions of Local Education Administration

The School Education Law was established on 31 March 1947, just after the war, when there was a shortage of commodities. In these circumstances, textbooks comprised the only materials used in school education. However, accompanying Japan's postwar rehabilitation, the substance and methods of school education underwent considerable change with the result that education became much broader in scope, making extensive use of other books, teaching materials and teaching aids in addition to textbooks.

Under these changed circumstances, the Government established in 1958 the "Law concerning Organization and Functions of Local Educational Administration" which contained articles on the use of teaching materials.

It was decided that the regulations concerning the utilization of teaching materials must be set up by the boards of education as provided in Paragraph 1 of Article 33 (Management of Schools, etc.) of the said Law: "The boards of education shall, without violating laws or regulations, establish rules necessary for basic items such as facilities, equipment, the formation of organizations, curricula, the utilization of teaching materials in the schools and other educational institutions under their jurisdiction and the management and operation of the said schools and other educational institutions. With regard to basic items requiring new budgets for their execution, the boards of education must consult the heads of the local public bodies concerned in advance."

Moreover, Paragraph 2 of the said Article gives specific instructions for the establishment of a system whereby the schools are to notify or seek approval from their boards of education regarding the use of teaching materials: "In the case as specified in the preceding paragraph, the boards of education shall establish a regulation for the schools whereby the latter shall notify the boards of education or seek approval from the boards of education in advance regarding the use of teaching materials other than textbooks."

(3) School Management Regulation

In accordance with the above-mentioned Article 33 of the "Law concerning the Organization and Functions of Local Educational Administration", the boards of education have all duly established school management regulations and specific instructions concerning the use of teaching materials. As an example, the following is the School Management Regulation established by the Tokyo Metropolitan Board of Education.

It should be noted that this mode of utilization of teaching materials by the Tokyo Metropolitan Board of Education is more or less the same as that used by the majority of the prefectural and municipal boards of education throughout the country.

In other words, the use of teaching materials is encouraged in Article 17 (Use of Teaching Materials) of the Tokyo Metropolitan School Management Regulation which provides that "Schools should make use of such books and other teaching materials in addition to textbooks (hereinafter to be collectively referred to as "teaching materials") as are considered useful and appropriate for the enhancement of the quality of education." With regard to the selection of teaching materials, Article 18 (Selection of Teaching Materials) of the said Regulation prescribes criteria for the materials to be selected for use: "When utilizing teaching materials, school should select teaching materials which conform with the curricula established in accordance with Article 14 (Criteria for the Formation of Curricula) and which fulfill the following requirements: (1) the substance of the teaching materials must be accurate and impartial; (2) the level of the teaching materials must be in line with that of the subjects studied; (3) the expressions used in the teaching materials must be accurate and appropriate."

At the same time, Paragraph 2 of the said Article demands that due care be taken not to overburden the parents and guardians through the use of expensive teaching materials: "When selecting such teaching materials as are provided for in the preceding paragraph, the financial burden on the parents and guardians must be given special consideration."

With regard to the formalities required for the use of teaching materials, it is stipulated in Paragraph 1 of Article 19 (Teaching Materials Requiring Approval or Notification) of the said Regulation that "Principals of schools must seek the approval of the municipal board of education for books that are to be used as the main teaching materials for subjects for which textbooks have not been issued (to be hereinafter referred to as "supplementary textbooks") thirty days before the first day of use." At the same time, it is stipulated in this same Paragraph that teaching materials of importance such as those used for social studies in Grade 1 of elementary school, for physical education and moral education in Grades 1 to 6 of elementary schools, and for moral education in Grades 1 to 3 of lower secondary schools may not be used without the approval of the boards of education.

Further, it is provided in Paragraph 2 of the said Article that "The principals of the schools must notify the municipal boards of education fourteen days before the first day of use in the event that the following teaching materials are to be used on a continuous basis for a particular grade, class or a special group of pupils or students: 1. supplementary readers, manuals and other reference books to be used in combination with textbooks and supplementary textbooks; 2. exercise books and diaries to be used during the course of study and during holidays."; other general teaching materials can be utilized freely as long as notification is submitted.

(4) Courses of Study

The Ministry of Education, Science and Culture stipulates in its

General Provisions of the Courses of Study for Elementary Schools in 1980 and for Lower Secondary Schools in 1981 that "Well-planned utilization of the school library and teaching materials and aids, including audio-visual materials, should be made."

(5) Industrial Education Promotion Law

The Industrial Education Promotion Law was established in 1951 and its objective is stated in Article 1: "In view of the fact that industrial education constitutes the basis for the growth of the nation's industrial economy and the improvement in the standard of living of the people, this law, in conformity with the spirit of the Fundamental Law of Education, has as its objective the promotion of industrial education, by means of which citizens are to be assisted to develop proper attitudes toward their work, to acquire industrial skills, and to cultivate their ingenuity and creativity, with a view to becoming better able to contribute to the growth of the nation's financial independence."

This Industrial Education Promotion Law applies to the education given in the fields of agriculture, industry, commerce, fisheries and other industrial subjects at lower and upper secondary schools as well as at universities. If the facilities and equipment for education in the above-mentioned subjects do not meet the standards set by the government ordinance, the State is to bear the total or half the cost of their installation should the establisher of the school so desire.

(6) Law for the Promotion of Science Education

The Law for the Promotion of Science Education was enacted in 1953 when importance began to be attached to the education of science and technology; its objective is stated in Article 1 (the Objective of this Law): "In view of the fact that science education is most important as the basis for the establishment of a cultural state, this law, in conformity with the spirit of the Fundamental Law of Education and the School Education Law, has as its objective the promotion of science education, assisting the citizens to acquire scientific knowledge, skills and attitudes and to cultivate their ingenuity and creativity with a view to enabling them to carry on their everyday life in a more rational manner and to contribute to the progress of our nation."

This Law specifically applies to the education in the two subjects, namely science (biology, chemistry, physics, earth science) and arithmetic/mathematics, in elementary, lower secondary and upper secondary schools. In the event that the facilities for the teaching of these two subjects do not meet the standards set by the government ordinance, the State is to bear half the cost involved in the installation of facilities should the establisher of the school so desire.

(7) Law concerning the National Treasury's Share of Compulsory Education Expenses

Article 3 (the National Treasury's Share of the Expenses for

Teaching Materials) of the Law concerning the National Treasury's Share of Compulsory Education Expenses stipulates that "Each year, the State shall bear half the expenses required for the teaching materials used for education in schools designated by the State as compulsory education schools in each of the prefectures and municipalities. However, in conformity with the government ordinance, the amount to be borne by the State will depend on the type of compulsory education school and will be based on the number of pupils or students of the school, and will not exceed half the total amount computed by the respective schools." Thus, every year, the State is required to pay the prefectures and municipalities money toward the amount needed by the compulsory education schools for the provision of teaching materials.

The system of the National Treasury's Share of teaching materials was established in 1953 and, in the initial period, only a small part of the amount was borne by the State. However, with the reconstruction of the national economy, the amount to be covered by the National Treasury was amended in 1958 to half the total cost and this amendment still holds to this day.

Furthermore, in 1967, criteria were established for deciding on teaching materials viewed as fundamentally necessary for the execution of instruction as designated in the Courses of Study, with a view to lightening the burden of the cost of teaching materials on parents as well as securing the satisfactory provision of teaching materials in compulsory education schools. On the basis of these criteria, the First 10-Year Teaching Materials Provision Plan starting 1967 was established to ensure the well-planned and satisfactory provision of teaching materials.

Moreover, the Second 10-Year Teaching Materials Provision Plan starting in 1978 was established with a view to further improvement in the provision of teaching materials, and this plan is now being carried out steadily.

2. Role of the Ministry of Education, Science and Culture, Boards of Education and Schools in Respect of the Promotion of the Utilization of Teaching Materials

(1) Role and Efforts of the Ministry of Education, Science and Culture

For the purpose of enhancing the scholastic ability of the pupils and students overall, the Ministry of Education, Science and Culture contributed toward the provision and improvement of teaching materials by apportioning 15.2 billion yen in 1983 (16.8 billion yen in 1982) to the prefectures and municipalities as part of the cost of teaching materials in accordance with the Law concerning the National Treasury's Share of Compulsory Education Expenses. In other words, in addition to the 15.2 billion yen apportioned by the State, the prefectures and municipalities prepared a budget for the same amount of 15.2 billion yen, which means that a total of 30.4 billion yen was spent

on the provision of teaching materials.

Moreover, in 1983, the following points were taken into consideration to allow for greater fulfillment in science education and industrial education (according to *The Ministry of Education, Science and Culture Budget for 1983*):

1) *For Greater Fulfillment in Science Education*

Given the remarkable progress in science and technology, it has become increasingly important to achieve greater fulfillment in the education of science, arithmetic and mathematics.

The Ministry of Education, Science and Culture is not only working toward improvements in the substance of education and teaching methods in the field of natural science but is also taking steps to create opportunities for the teachers concerned to receive in-service training as well as earmarking funds for the following items for the purpose of maintaining equipment necessary for science education, etc.

a. *Science Equipment*

In conformity with the "Law for the Promotion of Science", the Ministry of Education, Science and Culture has, since 1954, been subsidizing public and private elementary, lower secondary and upper secondary schools as well as special education schools for the mentally/physically handicapped in respect of part of the maintenance costs of equipment to be used in science education. Now that the standards for equipment had been revised at different levels of schools in line with the execution of the new Courses of Study, 1983 saw the satisfactory provision and maintenance of equipment. For this, the Ministry appropriated 1,660,140,000 yen to cover the expenses for the year 1983. The subsidy rate is half (three quarters in the case of Okinawa Prefecture).

b. *Special Equipment for Arithmetic and Mathematics*

With regard to the equipment viewed as indispensable for the teaching of arithmetic and mathematics in the light of the changing times and the revision of the school curriculum, the Ministry has, since 1970, been providing a subsidy, separate from that based on the traditional standards for teaching materials, to public and private elementary, lower secondary and upper secondary schools and to special education schools for the mentally/physically handicapped (the subsidy being based since 1972 on the Law for Promotion of Science Education). In 1983, the Provision was made according to the standards of equipment revised in 1980, and 604,698,000 yen was appropriated. The subsidy rate is half (three quarters in the case of Okinawa Prefecture).

c. Instruments Necessary for Observation and Survey Fieldwork in Public Compulsory Education Schools

The provision of instruments necessary for observation and survey fieldwork in elementary and lower secondary schools and the elementary and lower secondary sections of schools for the blind and the deaf has not been included in the subsidy for science education equipment calculated on the basis of the "Law for Promotion of Science Education." However, in view of the indispensability of such equipment, the Ministry has been giving assistance to the above-mentioned public schools by setting up a supplementary budget as from 1968. 81,887,000 yen was appropriated for the year 1983. The subsidy rate is half.

d. Facilities for the Training of Teachers in Charge of Science Education, etc.

Given recent progress in science and technology, it is necessary for teachers to develop new teaching methods and to receive training in the handling of new machinery and tools. In view of this, the substantial provision of facilities has become a pressing problem, and the Ministry has been offering a subsidy to prefectural education centres (including science education centres) since 1977 to cover the expenses required for the provision of apparatus necessary for such training. 19,072,000 yen (to cover 5 centres) was appropriated for the year 1983. The subsidy rate is half.

2) *For Greater Fulfillment in Industrial Education*

In conformity with the "Industrial Education Promotion Law" aimed at promoting industrial education in upper secondary schools, etc., the Ministry has, since 1952, been subsidizing the establishers of public and private upper secondary schools with part, if not all, of the expenses needed for the provision of facilities and equipment for experiments and training in industrial education. At the same time, the Ministry has been organizing lectures and courses for the teachers in charge of industrial education in order to improve their overall quality.

In 1983, the Ministry made substantial efforts to assist the promotion of industrial education; a budget of 10,438,163,000 yen was appropriated with the principal aim of meeting the expenses required for the provision of facilities and equipment for experiments and training in industrial education and for the training of the teachers.

(2) *Role and Efforts of Boards of Education and Schools*

Prefectural and municipal boards of education receive financial aid for teaching materials from the National Treasury as stipulated in Article 3 of the Law concerning the National Treasury's Share of Compulsory Education Expenses. They compute their own share of budgets corresponding to those to be covered by the subsidy of the National Treasury and work toward the satisfactory provision of teaching materials. Moreover, they

concern themselves with the use of these teaching materials as stipulated in the Law concerning the National Treasury's Share of Compulsory Education Expenses, and with the utilization of facilities and equipment that have been installed in conformity with the Law for Promotion of Science Education and the Industrial Education Promotion Law. In other words, the boards of education work very hard for the schools under their jurisdiction by encouraging research on the use and utilization of the teaching materials, by sending school advisers from the boards of education to give advice to teachers in schools, and by studying the various methods of use and utilization through lectures and study meetings.

On the other hand, there are books and other printed materials, teaching aids and teaching materials, etc. other than those that are purchased or installed at the expense either of the State or of the prefectures or municipalities. These are purchased by the parents of the pupils and students and are used at school and/or at home. In this respect, the boards of education give constructive advice and guidance with regard to the selection, the adoption and utilization of such teaching materials, and take steps to see fruit borne in the educational field through their efficient use.

The teaching materials are selected after careful discussion of their contents, composition, price, etc., by a committee constituting the principal, vice-principal, head teachers by subject and head teachers by grade, or at meetings held between teachers in charge of the same grades or the same subjects.

Further, teaching materials such as books and other printed materials and teaching aids that are to be owned and used personally by the pupils and students are for the most part purchased at private expense while all other teaching aids and apparatus, etc., are generally purchased at public expense. The boards of education deliberate seriously and carefully on the substance and cost of the teaching materials to be purchased by the parents of the pupils and students, and make every effort to achieve effective utilization of inexpensive and good quality teaching materials.

For teaching materials such as books and other printed matters with important contents, the teaching materials selection committee must give careful consideration to the link between these materials and the Courses of Study and/or textbooks, to the educational programmes set by the teachers, the personalities, abilities and academic levels of the pupils and students, the expense to be borne by the parents, etc. In the course of its considerations, the committee carefully checks and confirms the samples in the light of the above criteria and then decides on whether the teaching materials are appropriate for use or not.

Further, with regard to teaching materials that have been utilized, meetings are held between teachers in charge of the same grades and subjects in order to discuss carefully the results of the utilization and its effectiveness and also how subsequent instruction should be carried out.

II. VARIETY AND DISSEMINATION OF TEACHING MATERIALS

There are many different kinds of teaching materials and detailed information is given here on the following teaching materials considered to be the most typical in Japan: books and other printed materials; maps and wall charts, teaching aids, teaching materials; audio-visual materials.

The Law concerning the National Treasury's Share of Compulsory Education Expenses, the Law for Promotion of Science Education and the Industrial Education Promotion Law contain, respectively, articles on a variety of teaching materials and teaching aids. In the following, for convenience, the above three types of teaching materials are taken up as they are generally used in schools in Japan.

1. Books and Other Printed Materials

"Books and other printed materials" collectively refer to those materials contributing toward learning, mastery and evaluation in conformity with the provisions of Paragraph 2, Article 21 of the School Education Law and those of Article 17 of the School Management Regulation.

The variety, dissemination and total cost of these books and other printed materials are listed below:

(1) Variety

Supplementary readers, supplementary textbooks, reference books, workbooks, collections of questions, manuals, drillbooks, exercise books, fieldwork notebooks, anthologies, picture diaries, class diaries, skill-books, workbooks for the summer and winter holidays, calligraphy and penmanship notebooks, notebooks for practical training, chronological tables of history with blank spaces for students to fill in, blank maps, chronological tables of history, test books, printed tests, psychological tests, standard achievement tests, personality tests, data books, encyclopaedias, dictionaries, yearbooks, picture books, etc.

(2) Dissemination

In each year, the dissemination amounts to 300 million copies with a value of 60 billion yen for elementary schools, 110 million copies at 40 billion yen for lower secondary schools, and 150 million copies at 60 billion yen for upper secondary schools, the total being 560 million copies with a value of 160 billion yen (1982).

It should also be mentioned that the circulation of textbooks is as follows: 126 million copies for elementary schools, 55 million copies for lower secondary schools, and 43 million copies for upper secondary schools, the total being 224 million copies worth 65 billion yen. Out of this total 46 billion yen worth of textbooks for elementary and lower secondary schools

are distributed free of charge.

2. Maps and Wall Charts, Teaching Aids, Teaching Materials, etc.

(1) Variety

Maps and wall charts, teaching materials for science, arithmetic and mathematics, home-making, drawing and painting, handicraft, fine arts and calligraphy, musical instruments, etc.

(2) Dissemination

Dissemination amounts to 100 million items with a value of 10 billion yen for elementary schools, 40 million items at 6 billion yen for lower secondary schools, and 30 million items at 9 billion yen for upper secondary schools, the total being 170 million items with a value of 25 billion yen.

3. Audio-visual Teaching Materials

(1) Variety

Projectors (8mm, 16mm), concept films, slide projectors, OHPs, opaque projectors, TV receivers (black and white, colour), TV cameras (black and white, colour), in-school broadcasting systems, CCTV systems, tape recorders (open reel, cassette), sound sheet recorders, VTRs (black and white, colour), response analyzers, language laboratories, etc.

(2) Total Cost

The full extent of dissemination is not known for certain as there is such a wide variety of audio-visual teaching materials. The cost is estimated at over 100 billion yen.

III. SCHOOLS AND PURCHASING EXPENSES

Teaching materials are purchased, either at public expense, covered by the State, the prefectures and the municipalities, or at private expense covered by the parents of the pupils and students. The details are given below:

1. Public Expenditure on Education

For the purpose of promoting school education for pupils and students, the State, the prefectures and the municipalities pay the following amounts annually to cover school expenses per student (quoted from *The Statistical Abstract of Education, Science and Culture, 1980 Edition*): 279,922 yen for kindergartens, 433,730 yen for elementary schools, 529,696 yen for lower secondary schools, and 598,563 yen for upper secondary schools.

As school expenses also include wages for the teaching staff and

expenses for educational research, etc., these amounts cannot simply be regarded as "teaching materials expenses." But the above figures can be seen as public expenditure on education including teaching materials.

The next paragraph shows the grand total of public expenditures covered by the State in broad categories.

Out of the State expenditures for 1983, the subsidy for teaching materials as stipulated in Article 3 of the Law concerning the National Treasury's Share of Compulsory Education Expenses amounted to 15.2 billion yen (16.8 billion yen in 1982), the subsidy as stipulated in the Law for Promotion of Science Education amounted to 3.1 billion yen (3.4 billion yen in 1982), and the subsidy as stipulated in the Industrial Education Promotion Law amounted to 2.1 billion yen (3.2 billion yen in 1982), the total being 20.4 billion yen.

2. School Expenditures Covered by the Parents

The annual school expenses per student borne by the parents of pupils and students amount to 152,944 yen (this figure and those listed below are quoted from *The Statistical Abstract of Education, Science and Culture, 1980 Edition*) in the case of elementary schools, 35,818 yen of which covers the cost of teaching materials; 164,874 yen in the case of lower secondary schools, 54,978 yen of which covers the cost of teaching materials; and 204,948 yen in the case of upper secondary schools, 81,026 yen of which covers the cost of teaching materials.

These are 1980 statistics and so a 10% increase over these figures would probably be a reasonable estimate for statistics for 1983.

IV. SITUATION AND EFFECTIVENESS OF THE UTILIZATION OF TEACHING MATERIALS

The situation regarding the utilization of teaching materials in Japan is one in which the State, the prefectures and the municipalities provide encouragements and parents and teachers make an eager response. It is against this background that teaching materials are used in all the 25,005 elementary schools with 11.79 million pupils, 10,810 lower secondary schools with 5.74 million students, and 5,219 upper secondary schools with 4.68 million students. All the pupils and students are utilizing teaching materials and this is producing good academic results. The following sections show the present situation regarding the utilization of teaching materials according to the different types.

1. Books and Other Printed Materials

Books and other printed materials including reference books, workbooks, drillbooks, etc. are used in all the elementary schools, lower secondary schools and upper secondary schools. These are used both at school and at home, producing high academic results, and the dissemination rate is 100 percent.

2. Maps and Wall Charts, Teaching Aids and Teaching Materials, etc.

Maps and wall charts are used in every elementary, lower secondary and upper secondary school. They are kept at school in ordinary classrooms and/or in special classrooms and are utilized when the need arises.

Teaching aids and teaching materials are also effectively utilized in every elementary, lower secondary and upper secondary school; some are given to each pupil and student and others are kept at the school.

3. Audio-Visual Teaching Materials

Due to their high cost, audio-visual teaching materials are not as yet 100 percent diffused and are not used in every elementary, lower secondary and upper secondary school. However, with the move toward a more science-and technology-oriented education, their dissemination has recently been increasing at a remarkable pace as can be seen in the statistical table compiled by the Ministry of Education, Science and Culture (See page 13).

As can be seen from this table, slides, projectors, OHPs, TV sets (colour), in-school broadcasting systems, and cassette tape recorders are five kinds of expensive audio-visual teaching materials that have already been in use for some time, and the majority of elementary, lower secondary and upper secondary schools are equipped with these particular teaching materials. Moreover, projectors and video tape recorders are used in over 80 percent of upper secondary schools. These teaching materials are all utilized effectively and are producing high academic results.

4. Situation regarding the Utilization of Teaching Materials within the Home

In line with the annual increase in per capita income, school expenditure per household is also rising annually. Out of the total amount of school expenditures borne by the parents (cf. III-2. School Expenditures Covered by the Parents), the amount spent annually on home education per pupil/student is quite high, namely 78,879 yen for every elementary school pupil (this figure and those listed below are quoted from *The Statistical Abstract of Education, Science and Culture, 1980 Edition*), 56,570 yen for every lower secondary school student and 38,025 yen for every upper secondary school student.

This home education expense refers to the amount disbursed by parents for the studies of their children at home. The figure includes the cost of teaching materials, tuition fees for private tutor, classes at various types of private institutions, etc.

Dissemination Rate of Audio-visual Equipment (Public Schools)

(8)

Items	Elementary		Lower Secondary		Upper Secondary	
	1977	1980	1977	1980	1977	1980
1. 16mm Projectors	51.0	55.7	51.4	57.6	91.6	96.9
2. 8mm Projectors	77.3	77.7	78.2	78.7	81.5	84.7
3. Concept Film Projectors	15.1	22.1	13.8	23.1	12.6	10.7
4. Slide Projectors	92.9	97.1	94.7	98.1	96.8	98.8
5. Overhead Projectors	98.5	99.5	98.7	99.1	97.3	98.9
6. Opaque Projectors	35.1	39.5	38.0	47.8	32.1	32.6
7. TV Receivers (black & white)	70.9	43.3	61.5	40.6	70.2	62.7
8. TV Receivers (colour)	91.2	98.1	75.2	94.3	64.1	90.6
9. TV Cameras (black & white)	25.6	25.2	29.8	30.9	64.8	61.6
10. TV Cameras (colour)	6.5	26.8	5.3	28.7	7.2	39.9
11. In-School Broadcasting Systems	97.6	98.1	99.1	98.1	97.4	97.3
12. CCTV Systems	22.6	31.5	14.9	17.3	4.9	4.8
13. Tape Recorders (open reel)	76.5	54.4	78.3	61.4	86.7	83.3
14. Tape Recorders (cassette)	92.2	97.4	92.7	98.0	91.5	97.1
15. Sound Sheet Recorders	15.3	13.6	17.4	13.4	9.7	6.9
16. Videotape Recorders (black & white)	22.6	17.3	31.7	23.8	67.9	59.3
17. Videotape Recorders (colour)	24.9	53.7	33.1	71.4	49.2	85.8
18. Response Analyzers	7.5	8.6	15.9	20.8	12.0	15.8
19. Language Laboratories	0.6	0.7	11.4	16.5	15.2	16.4

(Source: The Statistical Abstract of Education, Science and Culture, 1982 Edition)

Most households with children attending elementary, lower secondary or upper secondary schools purchase and use books and other printed materials such as reference books, workbooks, collections of questions, etc. Furthermore, many purchase audio-visual teaching materials and simple language laboratory equipment and they use these by combining tapes and texts, video with tapes and texts, or various types of sheets with tapes and texts. Expenditure on these teaching materials is on the verge of exceeding 100 billion yen annually (1982).